

# EXHIBIT A

---

***Proof of Claim No. 2-1 of IOActive, Inc.  
with Supporting Documentation***

**Fill in this information to identify the case:**

Debtor 1 Artius.iD, Inc. fka Q5iD, Inc.

Debtor 2  
(Spouse, if filing) \_\_\_\_\_

United States Bankruptcy Court for the: Western District of Texas

Case number 23-11007-cgb

**Official Form 410****Proof of Claim**

04/22

**Read the instructions before filling out this form. This form is for making a claim for payment in a bankruptcy case. Do not use this form to make a request for payment of an administrative expense. Make such a request according to 11 U.S.C. § 503.**

**Filers must leave out or redact** information that is entitled to privacy on this form or on any attached documents. Attach redacted copies of any documents that support the claim, such as promissory notes, purchase orders, invoices, itemized statements of running accounts, contracts, judgments, mortgages, and security agreements. **Do not send original documents;** they may be destroyed after scanning. If the documents are not available, explain in an attachment.

A person who files a fraudulent claim could be fined up to \$500,000, imprisoned for up to 5 years, or both. 18 U.S.C. §§ 152, 157, and 3571.

**Fill in all the information about the claim as of the date the case was filed. That date is on the notice of bankruptcy (Form 309) that you received.**

**Part 1: Identify the Claim**

1. <b>Who is the current creditor?</b>	<u>IOActive, Inc.</u> Name of the current creditor (the person or entity to be paid for this claim) Other names the creditor used with the debtor _____	
2. <b>Has this claim been acquired from someone else?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes. From whom? _____	
3. <b>Where should notices and payments to the creditor be sent?</b>  Federal Rule of Bankruptcy Procedure (FRBP) 2002(g)	<b>Where should notices to the creditor be sent?</b> <u>SwisherGroup, Ltd. for IOActive, Inc.</u> Name <u>PO Box 10342</u> Number Street <u>College Station TX 77842</u> City State ZIP Code Contact phone <u>512-334-2000</u> Contact email <u>contact@swishergroup.com</u> Uniform claim identifier for electronic payments in chapter 13 (if you use one): _____	<b>Where should payments to the creditor be sent? (if different)</b> <u>SwisherGroup, Ltd. for IOActive, Inc.</u> Name <u>PO Box 10342</u> Number Street <u>College Station TX 77842</u> City State ZIP Code Contact phone <u>3342000</u> Contact email <u>contact@swishergroup.com</u>
4. <b>Does this claim amend one already filed?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes. Claim number on court claims registry (if known) _____ Filed on _____ MM / DD / YYYY	
5. <b>Do you know if anyone else has filed a proof of claim for this claim?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes. Who made the earlier filing? _____	

**Part 2: Give Information About the Claim as of the Date the Case Was Filed**

6. Do you have any number you use to identify the debtor? ☐ No ☒ Yes. Last 4 digits of the debtor's account or any number you use to identify the debtor: 6 0 8 2

7. How much is the claim? \$ 100,796.00 Does this amount include interest or other charges? ☒ No ☐ Yes. Attach statement itemizing interest, fees, expenses, or other charges required by Bankruptcy Rule 3001(c)(2)(A).

8. What is the basis of the claim? Examples: Goods sold, money loaned, lease, services performed, personal injury or wrongful death, or credit card. Attach redacted copies of any documents supporting the claim required by Bankruptcy Rule 3001(c). Limit disclosing information that is entitled to privacy, such as health care information.
- Security Consulting - Completion

9. Is all or part of the claim secured? ☒ No ☐ Yes. The claim is secured by a lien on property.
- Nature of property:**
- ☐ Real estate. If the claim is secured by the debtor's principal residence, file a *Mortgage Proof of Claim Attachment* (Official Form 410-A) with this *Proof of Claim*.
- ☐ Motor vehicle
- ☐ Other. Describe: \_\_\_\_\_
- Basis for perfection:** \_\_\_\_\_
- Attach redacted copies of documents, if any, that show evidence of perfection of a security interest (for example, a mortgage, lien, certificate of title, financing statement, or other document that shows the lien has been filed or recorded.)
- Value of property:** \$ \_\_\_\_\_
- Amount of the claim that is secured:** \$ \_\_\_\_\_
- Amount of the claim that is unsecured:** \$ \_\_\_\_\_ (The sum of the secured and unsecured amounts should match the amount in line 7.)
- Amount necessary to cure any default as of the date of the petition:** \$ \_\_\_\_\_
- Annual Interest Rate** (when case was filed) \_\_\_\_\_ %
- ☐ Fixed
- ☐ Variable

10. Is this claim based on a lease? ☒ No ☐ Yes. Amount necessary to cure any default as of the date of the petition. \$ \_\_\_\_\_

11. Is this claim subject to a right of setoff? ☒ No ☐ Yes. Identify the property: \_\_\_\_\_

12. Is all or part of the claim entitled to priority under 11 U.S.C. § 507(a)?

☒ No

☐ Yes. Check one:

☐ Domestic support obligations (including alimony and child support) under 11 U.S.C. § 507(a)(1)(A) or (a)(1)(B).

☐ Up to \$3,350\* of deposits toward purchase, lease, or rental of property or services for personal, family, or household use. 11 U.S.C. § 507(a)(7).

☐ Wages, salaries, or commissions (up to \$15,150\*) earned within 180 days before the bankruptcy petition is filed or the debtor's business ends, whichever is earlier. 11 U.S.C. § 507(a)(4).

☐ Taxes or penalties owed to governmental units. 11 U.S.C. § 507(a)(8).

☐ Contributions to an employee benefit plan. 11 U.S.C. § 507(a)(5).

☐ Other. Specify subsection of 11 U.S.C. § 507(a)( ) that applies.

Amount entitled to priority

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\$ \_\_\_\_\_

\* Amounts are subject to adjustment on 4/01/25 and every 3 years after that for cases begun on or after the date of adjustment.

**Part 3: Sign Below**

The person completing this proof of claim must sign and date it. FRBP 9011(b).

If you file this claim electronically, FRBP 5005(a)(2) authorizes courts to establish local rules specifying what a signature is.

A person who files a fraudulent claim could be fined up to \$500,000, imprisoned for up to 5 years, or both. 18 U.S.C. §§ 152, 157, and 3571.

Check the appropriate box:

☐ I am the creditor.

☒ I am the creditor's attorney or authorized agent.

☐ I am the trustee, or the debtor, or their authorized agent. Bankruptcy Rule 3004.

☐ I am a guarantor, surety, endorser, or other codebtor. Bankruptcy Rule 3005.

I understand that an authorized signature on this *Proof of Claim* serves as an acknowledgment that when calculating the amount of the claim, the creditor gave the debtor credit for any payments received toward the debt.

I have examined the information in this *Proof of Claim* and have a reasonable belief that the information is true and correct.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on date 09/17/2024  
MM / DD / YYYY

Clinton A. Swisher, CGCE

Signature

Print the name of the person who is completing and signing this claim:

Name	<u>Clinton Andrew Swisher</u>		
	First name	Middle name	Last name
Title	<u>Managing Member</u>		
Company	<u>SwisherGroup, Ltd,</u>		
	Identify the corporate servicer as the company if the authorized agent is a servicer.		
Address	<u>PO Box 10342</u>		
	Number	Street	
	<u>College Station</u>	<u>TX</u>	<u>77842</u>
	City	State	ZIP Code
Contact phone	<u>5123342000</u>	Email	<u>contact@swishergroup.com</u>

**UNITED STATES BANKRUPTCY COURT  
WESTERN DISTRICT OF TEXAS  
AUSTIN DIVISION**

**In Re:  
ARTIUSID, INC**

§  
§  
§  
§

**Case No. 23-11007-CGB**

**Debtor(s)**

**Chapter 7**

**DECLARATION OF IOACTIVE, INC.**

I, Jennifer Steffens, hereby declare and certify on behalf of IOActive, Inc.:

1. I am over 18 years of age. I am currently employed by IOActive, Inc. ("the Company"). I am a custodian of records for the Company.
2. Each of the records attached hereto is the original record or a true duplicate of the original record in the custody of the Company. I am the custodian of the attached records.
3. I have produced the following records, which are subject to this certification, in connection with the Company's Proof of Claim to be filed in the bankruptcy case of ArtiusID, Inc.:

*Proposal to Provide Security Assessment Services – PID and Guardian dated April 26, 2022*

*Services Agreement dated with Effective Date May 2, 2022*

IOActive Invoice No. 7209

4. I hereby certify that all records attached hereto were made at or near the time by, or from information transmitted by, a person with knowledge of those matters.
5. These records were kept in the course of a regularly conducted business activity of the Company and were made by the Company as a regular practice of that activity.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 20th day of September, 2024 in Seattle, WA.

DocuSigned by:

*Jennifer Steffens*

E0FA5D9E7A2D46C...

[Signature]

DS

*lll*

**IOActive**

Research-fueled Security Services

**Date**

*April 26, 2022*

**Project**

*Proposal to Provide Security Assessment  
Services – PID and Guardian*

**Client**

*Q5id, Inc.*

*6799 NE Bennett St.*

*Hillsboro, OR 97124*

IOActive, Inc.  
1426 Elliott Ave. W.  
Seattle, WA 98119

Toll free: (866) 760-0222  
Office: (206) 784-4313  
Fax: (206) 784-4367

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## Executive Summary

IOActive, Inc. (IOActive) is pleased to present this proposal for professional security services to Q5id, Inc. (Q5id), whose Proven Identity Management solution uses a comprehensive, powerful, and frictionless biometric enrollment and authentication process, through which Q5id meets every customer and proves their digital identity is secure, preventing identity theft and fraud.

IOActive is a professional security services firm that is ready to assist Q5id with its security requirements. Our team is comprised of highly skilled and experienced information security professionals who work collaboratively with your stakeholders, and maintain open and direct communication throughout the project, ensuring that we meet your objectives while minimizing any potential risks. IOActive offers the security industry's only service satisfaction guarantee.

Among the Global 500 companies who partner with IOActive are some of the world's foremost application developers and service providers, who turn to us for network and software penetration testing, threat modeling, and source code reviews, as well as consulting services, Red Team reviews, and secure design lifecycle assistance. For more information on IOActive's experience and qualifications, see Appendix D: IOActive Qualifications of this document.

Based upon recent conversations, IOActive understands that Q5id is seeking a pre-release security review and audit of its mobile and web applications, including their related web services. IOActive consultants will assume the posture of an external attacker, attempting to bypass existing perimeter security controls and connect to systems and services.

This engagement will be performed remotely.

As the engagement progresses, IOActive will validate and periodically refine the assessment's scope with Q5id's project leaders based on observations and findings. In addition to maintaining a risk-based focus, this approach allows Q5id to apply cost containment measures, helping IOActive narrow the scope without negatively affecting the outcome.

At the end of testing, IOActive will prepare and deliver a written report that summarizes the major security issues. The report will include the assessment procedures, vulnerabilities and exposures uncovered, and recommendations for addressing those vulnerabilities.

This document describes IOActive's proposed scope, approach, deliverables, and fees.





## Scope and Approach

IOActive will assess the security posture of Q5id's in-scope assets. The focus of this assessment is to provide both coverage of testing and creation of a security baseline for the in-scope assets. The primary outcome of the assessment is to confirm the existing security posture of the assets and provide a roadmap for future security enhancements and testing.

The Q5id solution allows businesses to easily onboard new employees or customers with identity proofing and enable biometric authentication from anywhere using an app on iOS or Android.

The system includes the following in-scope elements:

- Proven Identity mobile app – used to prove the identity of customers attempting to gain access to another application. The user authenticating uses the Q5id app to complete a quick scan of their face and one palm to gain access. Scans are compared against previously enrolled biometrics. The app's backend is a Persistent Identifier (PID) platform hosted on Azure.
- Guardian mobile app - used to help find missing people through real-time, user-initiated alerts. Proven Identity is used to gain access. Guardian is hosted on a third-party secure data vault service, which is in scope for this engagement.
- Advisor web application – allows interactive validation of new enrollments. With 2-3 non-static pages, the application uses Azure Active Directory SSO authorization with app registration, and client-side security validation.
- Data Vault web application – the backend data service for the Guardian app, with approximately 50-70 non-static pages and Azure SSO authorization.
- Web Services – RESTful JSON APIs with nine endpoints. Q5id uses APIM for managing endpoint access.

For more information on IOActive's overall approach, project management, and detailed methodology, see the Appendices at the end of this document.

## Out of Scope

Anything not specifically listed as in scope is out of scope for this engagement.



## IOActive Deliverables

IOActive will hold a project kick-off call, then provide regular updates on the progress and results of this project in the form of regular status reports and a comprehensive technical report.

### Kick-off Call

Prior to engagement start, IOActive will hold a project kick-off call with project stakeholders to review the scope of work, key project success criteria and finalize necessary logistics.

### Status Reports

During the engagement, IOActive will deliver status reports, on a weekly basis or as otherwise agreed. Reports may include brief recaps of the consultants' work and their preliminary findings. Depending on client need, IOActive may also conduct weekly conference calls or meetings to discuss progress and findings.

### Technical Report

At the conclusion of this project, IOActive will prepare a detailed report that discusses key vulnerabilities and risks identified. This report will contain separate sections for management and technical resources.

The management section will include:

- An executive summary
- A project overview
- A high-level summary of findings
- An overall risk assessment
- Management-level recommendations

The technical section will include:

- Detailed descriptions of the methodologies IOActive consultants used and how risk, impact, and threat ratings are generated
- Detailed information about identified flaws including their risk, impact, threat, and the effort needed to fix them
- Detailed descriptions of the steps and workflow that will allow clear understanding of each vulnerability
- Technical observations, descriptions, and remediation recommendations

In addition to the technical report, IOActive will provide a letter suitable for presentation to clients or third parties, containing a summary of the testing duration and approach, covered scope, and results.



## Q5id Responsibilities

IOActive makes several assumptions regarding Q5id's responsibilities that can influence the success and timely completion of this engagement. Please review this list for accuracy.

<i>Deliverable</i>	<i>Responsibility</i>	<i>Timing</i>
Designate a lead project liaison to help resolve issues related to this engagement.	Q5id	Kick-off meeting
Provide access to the in-scope assets, architecture documents, and anything else required to complete this engagement. IOActive will bill for project delays caused by failure to provide the information, materials, or access required to complete this engagement.	Q5id	One week prior to project start
Provide emergency security contacts for IOActive to contact if urgent security vulnerabilities/issues are discovered.	Q5id	Project start
Review IOActive deliverables on a prearranged schedule; ensure that other key contacts review assigned deliverables on schedule.	Q5id Project Liaison	Execution
Coordinate information gathering to ensure that meetings between resources and subject matter experts occur and that IOActive receives documents in a timely manner: Coordinate stakeholders to ensure acceptance of the deliverables within five business days of submittal.	Q5id Project Liaison	Execution
Present any deliverable issues through email to IOActive's Engagement Director.	Q5id Project Liaison	Execution
Key contacts must participate in this engagement as required, and assist in coordinating meetings and facilities, including status calls.	Q5id IOActive	Execution
Q5id will manage its own resources, timelines, and deliverables unless otherwise agreed to by IOActive.	Q5id	Execution

Important note: IOActive will bill for cancellations (including the cost of any non-refundable travel) made less than one calendar week from initiation.





## Project Timing, Terms, and Fees

Upon acceptance of this proposal, IOActive will arrange with Q5id to initiate work on a mutually accepted date.

The following estimate is subject to change by mutual agreement based on changes to the scope or engagement objectives such as level of requested vulnerability verification, resource availability, underlying project assumptions, or other factors not fully considered or known when this proposal was prepared.

The following table outlines the fees associated with this proposed engagement:

<i>Phase</i>	<i>Resources</i>	<i>Fee</i>
Kick-off Meeting	Engagement Director Engagement Manager Security Consultant	Included
Proven Identity Mobile and Web Application and Services Assessment	Security Consultant Engagement Director Engagement Manager Technical Writer	\$60,478
Guardian Mobile Application Assessment	Security Consultant Engagement Director Engagement Manager Technical Writer	\$40,318
<b>Total</b>		<b>\$100,796</b>

This engagement will be performed remotely.

The price listed in this quote is good for thirty (30) days from the date of the quote and supersedes all prior correspondence, quotations, and other communications, whether written or oral, provided by IOActive.

IOActive will be responsible for the work and project deliverables outlined and identified in this proposal and performance of the associated tasks. The fee outlined above is based on the scope and assumptions set forth in this document. Deviation from or the invalidity of any of the assumptions may affect the project fee and schedule and will be addressed using the project change control process. Any additional deliverables or requirements outside the scope of this proposal will be estimated and billed separately, as mutually agreed to by IOActive and Q5id.



In addition to our professional fees, our consultants are reimbursed for out-of-pocket expenses. We will make every attempt to minimize the expenses associated with this engagement, and will bill Q5id at actual cost for travel, lodging, and car rental as well as a per diem for meals and incidentals, if applicable.



## Invoicing

IOActive will submit an invoice for 50% of the engagement due upon completion of the project kick-off call and 50% upon submission of the final deliverable in accordance with standard payment terms.

Additionally, IOActive will periodically invoice Q5id at actual cost of expenses incurred for travel, lodging, car rental, and other necessary charges as well as a per diem for meals and incidentals.

If a purchase order (PO) is required to issue payment for services, the PO (or a copy) must be submitted to IOActive before the project can begin.

IOActive will submit invoices to the following Q5id Accounts Payable point of contact:

Q5id Accounts Payable	
Name	ELENA EASTWOOD
Address	6799 NE BENNETT STREET
Email	ACCOUNTING@Q5ID.COM
Phone	503-954-5489
Purchase Order	<input type="checkbox"/> Yes, a purchase order (PO) number is required to invoice <input checked="" type="checkbox"/> No, a PO number is not required






## Authorization

The parties acknowledge that this statement of work is executed in accordance with, and is subject to, the terms and conditions of the Services Agreement between the parties. The parties further acknowledge that the Services Agreement is in full force and in effect as of the date this document is signed. If there is a conflict between the provisions of the Services Agreement and the provisions of this statement of work, the provisions of the Services Agreement shall control. Signature below indicates acceptance of this statement of work and the terms and conditions herein.

### Q5id Representative

	Q5id, Inc.
Accepted by	
Name	STEVE LARSON
Title	CHIEF EXECUTIVE OFFICER
Email	slarson@q5id.com
Date	4/26/2022

### IOActive Representative

	IOActive, Inc.
Accepted by	
Name	Jennifer Steffens
Title	Chief Executive Officer
Email	jennifer.steffens@ioactive.com
Date	02 May 2022

DS  
UR

DS  
IOA LCA Approved - KM

Services Agreement between IOActive Inc. and Q5ID Inc. dated May 2, 2022.



It is agreed between IOActive and Q5id that services performed under this statement of work will be performed using reasonable care and skill reflecting the level of knowledge and expertise possessed by those individuals performing the services at the time such services are performed. Q5id understands and agrees that new technology, configuration changes, software upgrades, and routine maintenance, among other items, can create new and unknown security exposures. Because of the dynamic nature of the control environment and Q5id's reliance on the performance of its IT environment, maintaining documentation and sufficiency of controls is the sole responsibility of Q5id.

Thank you for this opportunity to assist Q5id with its risk management and information security improvement efforts. We look forward to working with you soon. If you have any questions about the work effort described in this document, please contact Chris Gagnon at (678) 523-7835 or [chris.gagnon@ioactive.com](mailto:chris.gagnon@ioactive.com).

#### IOActive Account Team

<i>Name</i>	Lance Reck	Chris Gagnon
<i>Title</i>	Associate Director of Services	Director of Sales
<i>Phone</i>	(720) 280-9012	(678) 523-7835
<i>Email</i>	<a href="mailto:lance.reck@ioactive.com">lance.reck@ioactive.com</a>	<a href="mailto:chris.gagnon@ioactive.com">chris.gagnon@ioactive.com</a>



## Appendix A: Engagement Approach

This section describes IOActive's overarching technical approach for this engagement, based on our current understanding of Q5id's need. Assessment steps will proceed generally as described, with variation and customization of specific tasks based on Q5id's requirements or unforeseen issues.

### Project Kick-off

A kick-off meeting is a call with IOActive's consultants and Engagement Manager that gives IOActive and Q5id stakeholders the opportunity to discuss plans for the project and document agreed-upon goals. This meeting normally will take place a week prior to the project's agreed start date.

During the project kick-off meeting, IOActive and Q5id will identify personnel, documentation, and other information required to begin work:

- Review of scope and identification of assessment targets, based on the perceived risk they present to Q5id, including the likelihood or ease of exploitation and potential effect on business assets
- Communication during the engagement
- How IOActive will provide notification of discovered vulnerabilities
- The decision-making process for exploiting security vulnerabilities as part of the testing process
- Status calls
- Deliverables

IOActive and Q5id will document the details of communication and decision-making for the project in a Rules of Engagement document.

### Information Gathering

Each methodology IOActive uses for this engagement may have specific information gathering activities that are relevant for that methodology, such as publicly available information databases as well as manual and automated investigation techniques. IOActive will use this information to identify target sets for further evaluation, classifying them by the risk they represent to Q5id.

IOActive uses its professional judgment and experience to determine the relative risk represented by each target class, based on factors such as:

- The ease or likelihood of a successful attack
- The potential technical impact of a successful attack, such as:
  - Compromising confidential information
  - Damage to data integrity





- Denial of service to legitimate users
- An escalation of privilege
- The potential non-technical impact of a successful attack, such as:
  - Compliance
  - Financial reporting
  - Operational risk
  - Reputational risk

## Execution

IOActive will assess the in-scope assets using the areas of focus listed in the Engagement Methodology section of this document. To control project progression and leverage work performed in earlier stages, IOActive conducts engagements in phases. To provide Q5id with an assessment that is focused on critical risk areas, IOActive will work closely with the Q5id-designated project lead to ensure concentration on:

- Targets that might cause significant damage
- Areas that could lead to significant compromise or escalation of access to internal systems and assets

IOActive consultants use automated software tools, proprietary scripts, and manual techniques to test the in-scope assets for exploitable vulnerabilities that would allow unauthorized access to key information or system controls. Potential issues discovered will be logged and then validated with Q5id stakeholders. Actual exploitability of discovered vulnerabilities will be tested in accordance with the defined Rules of Engagement for the project, and any risks associated with exploitation of a vulnerability or its resultant mitigation process will be made clear to Q5id.

IOActive consultants who are concentrating on different assessment areas may collaborate and share information and resources to increase the assessment's efficiency. This collaboration will occur within the constraints of the project scope, statements of work, and as agreed upon by IOActive and Q5id. IOActive consultants will provide regular updates to one another and the engagement director, keeping parties apprised of how scheduled tasks are progressing. The consultants or the engagement director will communicate these updates to Q5id stakeholders on a regular basis.

## Engagement Management

Before the first status call, the Engagement Manager will create a status report, outlining the work completed and any preliminary findings.

During the weekly status call, the consultants will go over the findings with Q5id. The Engagement Manager will make note of any changes required in the upcoming technical report and ensure that the project is on track.



IOActive will immediately report critical vulnerabilities to Q5id upon discovery, using the reporting process established in the Rules of Engagement. Should successful exploitation or other testing activities uncover additional risk areas, IOActive will work jointly with the Q5id team to decide how to proceed.

### Reporting

At the completion of testing, IOActive will prepare and deliver a detailed technical report outlining the major security vulnerabilities and exposures discovered. The report will include descriptions of the assessment procedures, technical details relating to the findings, and recommendations for addressing those vulnerabilities.

IOActive will also deliver weekly status reports or other updates as specified by Q5id.



## Appendix B: Engagement Methodology

The attacks and techniques described below represent a superset of methods that IOActive may use to assess Q5id's in-scope assets. IOActive will select the most applicable techniques for the assessment's scope and adjust them as needed as the engagement progresses.

### ***Mobile Application Penetration Test***

IOActive will determine the level of security awareness evident in the design of the in-scope mobile application and estimate the likelihood of issues based on that analysis. We will focus on attacking, modifying, and hijacking client-server interactions supported by the mobile application. We will not target data assets used in the backend database systems unless we are specifically asked to produce tokens as proof of compromise.

IOActive will examine and attempt to exploit security flaws that might allow privilege escalation, disclosure of sensitive information, injection of malicious code into trusted components, invalid transactions, and other conditions generally recognized as posing security vulnerabilities. This approach allows us to identify attack vectors and demonstrate the potential impact of a real-world attack.

#### **Information Gathering**

- Review relevant documentation, including technical design documents, process flows, and the security architecture to identify application attack surfaces
- Review project goals with your representatives to gain a solid understanding of the environment, operations, and business use cases
- Review software design documents in detail

#### **Penetration Testing**

- Attempt to bypass authentication and authorization mechanisms, including session management elements
- Use the compromised application as an escalation point to gain additional access
- Attempt to hijack client-server interactions
- Attempt to escalate privileges
- Attempt to modify data or the presentation thereof
- Transgress data protection mechanisms that separate customer data
- Identify security weaknesses that lead to access, unintended application usage, or loss of data integrity
- Evaluate encryption procedures
- Examine functionality and test it for repurposing attacks that might allow attackers to manipulate the application in unexpected ways





- Perform decompilation using tools like jadx, procyon, jad or cfr, and where applicable, perform disassembly using tools like Baksmali from the Android client to identify client-side logic and shared secrets that are required to interact with in-scope web services
- If required for the purposes of observing client application interactions, recompile the application with debugging hooks inserted; otherwise, use an HTTP debugging proxy to intercept web service interactions, explore the functionality, and search for potential vulnerabilities
- Examine application-to-application interactions between system components, such as web services and backend data sources, and attempt to reference system components by impersonating other system functions or sources
- Examine authentication methods in use on the application and their susceptibility to various subversion techniques; attempt to bypass the authentication process or impersonate valid, logged-in users
- Manipulate client-side code and locally stored information, such as session information
- Attempt to alter client-side code to subvert authentication checking and establish the bounds of server reliance on client data fields
- Alter API calls, URL request information, and GET or PUT requests to investigate the probability of unexpected systems responses
- Discover techniques that attackers could use to escalate their permissions by referencing application components with higher, server-side permissions or exploiting race conditions to identify lax permissions or authentication checking
- Attempt to subvert in-transit data between the client and server system
  - Examine data delivery methods and if they can be subverted or used in a replay-type or session-orientated attack
  - Analyze system responses to such data
- Determine the extent of damage or access for all findings by attempting to exploit vulnerabilities

### ***Web Application and Services Penetration Test***

IOActive will assess the level of security awareness evident in the design of the in-scope web application and its related services and estimate the likelihood of application issues based on that analysis. We will focus on attacking, modifying, and hijacking client-server interactions that are supported by the web applications, services, or websites. We will not target data assets used in the backend database systems unless we are specifically asked to produce tokens as proof of compromise.



IOActive will examine and attempt to exploit security flaws that might allow privilege escalation, disclosure of sensitive information, injection of malicious code into trusted components, invalid transactions, and other conditions generally recognized as posing security vulnerabilities. This approach allows us to identify all existing attack vectors and demonstrates the potential impact of a real-world attack.

In part, IOActive will look for the Open Web Application Security Project (OWASP) Top Ten:

- Broken Access Control
- Cryptographic Failures
- Injection
- Insecure Design
- Security Misconfiguration
- Vulnerable and Outdated Components
- Identification and Authentication Failures
- Software and Data Integrity Failures
- Security Logging and Monitoring Failures
- Server-Side Request Forgery (SSRF)

#### **Information Gathering**

- Become familiar with and understand the supporting network architecture using automated and manual tools
- Identify specific operating system versions, and highlight any significant known vulnerability
- Identify specific types of intrusion prevention and detection, or any other proactive blocking devices
- Assess the efficacy of these devices or add rules that allow traffic to proceed in an uninterrupted manner
- Identify specific server software versions
- Determine which application programming languages are in use

#### **Application Mapping and Discovery**

- Spider the entire application to discover intentionally visible and hidden content. This is useful in finding parameterized queries and ensuring full coverage during the assessment.
- Identify all entry points into the application, so that all exposed attack surfaces can be mapped accurately



- Assess every entry point in depth
- Attempt to discover content within the predefined scope using custom iterators
- Analyze error codes to learn about the application's behaviour and to aid in fingerprinting efforts. Many error pages disclose verbose, application-specific data.
- Identify all file extensions and handler behaviors used by the application
- Attempt to locate temporary or backup files
- Parse source code to identify information disclosure issues, such as information in embedded comments and disclosure of validation logic

### **Authentication Mechanisms**

- Review external resources for manufacturer- or vendor-known defaults; if none exist, use word lists built during information digging to test for easily guessed username-password combinations
- Make sure that authentication traverses a secure channel
- Verify that the SSL/TLS configuration for the application is in good standing and there are no issues with certificates, such as issuer, allowed cipher strengths, deprecated versions, expiration data, and signing issues
- Identify the application's susceptibility to user and other forms of enumeration that could lead to sensitive information disclosure or that an attacker could use to escalate privileges
- Test the application's susceptibility to brute-force attacks; note any countermeasures in place and their level of efficacy
- Test for flaws in the authentication logic that might allow authentication mechanisms to be bypassed
- Verify application configuration items, such as proper cookies that include the Secure and HttpOnly flags, the use of form autocompletion attributes, cache management, and more
- Test any CAPTCHA mechanisms (which distinguish human input from machine input) for general efficacy
- Make sure that appropriate levels of randomness are used to generate challenges
- Determine if CAPTCHAs can be tampered with or bypassed in any way
- Determine the efficacy of any two-factor authentication systems used; attempt to subvert them

### **Session Management**

- Analyze how the application handles user sessions; verify that sessions are properly granted, persisted, and expired





- Determine the integrity of any session tokens used
- Determine if applications are susceptible to cookie manipulation and other authentication tokens
- Perform tests to make sure that the application is not susceptible to session fixation attacks and does not display session parameters in an improper manner
- Make sure that the application supports page-to-page integrity checks that mitigate the threat posed by cross-site request forgery attacks
- Analyze the application's authentication mechanisms in a general manner
- Attempt to uncover how tokens are generated, issued, and validated
- Determine the application's susceptibility to known and unknown attacks

### Data Validation

- Test a number of different injection techniques and data validation deficiencies, based on the configuration of the targeted application and its supporting environment, such as:
  - SQL injection
    - Validate that parameterized queries are implemented correctly
    - Make sure the input is sane and handled properly
    - Attempt to use any discoveries to compromise the system or database
  - Cross-site scripting
    - Test the application's input validation and output encoding by attempting to discover reflected and persistent cross-site scripting vulnerabilities
    - Attempt to use these vulnerabilities, together with others, such as cross-site request forgery, to attack other user sessions
  - LDAP injection
  - XML injection
  - Command injection
  - Overflows (heap/stack and format string)
  - Server-side and remote includes
  - XPath injection
  - Directory traversal attacks
  - SOAP and web service attacks
  - Redirection and proxying attacks



- Evaluate input validation methods, and attempt to circumvent these by including escaping, encoding, splitting, termination, and injection
- Evaluate output-encoding methods, and attempt to circumvent these by including manipulating encodings and injection methods
- Analyze application and database interoperability, and make sure that existing mitigations help guarantee system integrity and availability
- Perform application-level fuzzing to discover new vulnerabilities

## Servers

- Make certain that servers disallow any form of cross-site tracing
- Determine which HTTP methods are allowed and operational on each in-scope server
- Attempt to use known unsafe HTTP methods (such as PUT and MOVE) to upload files to the remote system
- Attempt to use known unsafe HTTP methods (such as TRACE and DEBUG) to gain specific information about the web server, host, or application
- Perform server-level fuzzing to discover new vulnerabilities



## Appendix C: Project Management

IOActive combines management experience with proven models, techniques, and tools to ensure delivery of products and services in a timely, cost-effective manner, while meeting all client-defined objectives. Our methodology defines standard, repeatable processes for implementing and managing each task within the project:

- Planning, tracking, and reporting progress
- Change control
- Time and cost management
- Quality assurance
- Issue reporting and resolution

Standardizing these key project elements enables:

- More efficient completion of tasks
- Proactive detection of potential issues and expedient remedies to these
- Effective documentation and implementation of changes to a project

### ***Confirming Expectations***

Before beginning work on an engagement, IOActive confirms the goals, objectives, roles, and assumptions from the sales or proposal process. These elements help us plan, perform, and track our work. IOActive takes a disciplined approach to the daily management of scope, schedules, personnel, quality, and costs. We want to assure you that:

#### **We understand your goals**

- We define scope in enough detail to manage processes effectively
- Communication is open and fully documented throughout the project
- We monitor and track progress and results throughout each project
- The results of a project are discretely identifiable and success is measurable

#### **We manage engagements proactively**

- We monitor and adjust the project plan, report on status, and resolve issues
- We Identify and analyze changes to project scope
- We Identify potential issues and prepare mitigation plans
- We deliver high-quality, informative results that fulfill your requirements and specifications





## ***Managing Quality***

Delivering quality is fundamental to our mission, so IOActive works with you to identify measurable acceptance criteria and to deliver high quality project deliverables. To deliver these promises, the Engagement Manager is responsible for:

- Delivering timely information
- Identifying and resolving issues that may impede the project
- Analyzing trends and process defects

IOActive knows that project objectives and scope can change. We anticipate changes during the planning phase by discussing policies to manage change with you. We also have a formal process to monitor your satisfaction. At the end of the project, IOActive:

- Helps you identify follow-up tasks
- Prepares a comprehensive project report
- Obtains your acceptance of the project results



## Appendix D: IOActive Qualifications

IOActive has more than 20 years of experience providing information security consulting services. Established in 1998, IOActive is an industry leader that specializes in:

- IT infrastructure vulnerability assessments and pen tests
- Application security source code and architecture reviews
- ICS/SCADA and smart grid assessments and pen tests
- Emerging market assessments and pen tests (cloud, embedded, automotive, and more)
- Security development lifecycle training and review

IOActive works with many Global 500 companies including organizations in the power and utility, industrial, game, hardware, embedded, retail, financial, media, travel, aerospace, healthcare, high-tech, social networking, cloud, and software development industries.

We provide unequalled technical services, strive to become trusted advisors to our clients, and help them achieve their business and security objectives. We go well beyond off-the-shelf code scanning tools to perform gap analysis on information security policies and protocols. We also conduct deep analyses of information systems, software architecture, and source code using leading information risk and security management frameworks and focused threat models.

Your opponents do not use unsophisticated commercial pen-test tools to undermine your enterprise security. They use the smartest code breakers money can buy to footprint and damage your organization's brand using advanced, often unknown methods. IOActive's industry experience helps our clients consistently stay ahead of tomorrow's threats.

IOActive attracts people who contribute to the growing body of security knowledge by speaking at elite conferences such as RSA, SANS, SOURCE, Black Hat, InfoSecurity Europe, DEF CON, Blue Hat, and CanSecWest. We also have key advisors like Steve Wozniak and David Lacey, luminaries who affect how security and technology shape our world.

We truly appreciate the chance to be of service to your team.

### ***Insurance Coverage***

IOActive maintains commercial insurance coverage for itself and its employees in the amount of \$2 million for General Liability, and \$5 million for Cyber Liability.





## SERVICES AGREEMENT

This Services Agreement (this "Agreement") is made and entered into as of the effective date set forth below (the "Effective Date") by and between IOActive, Inc., a Washington corporation ("IOActive"), and the company identified below ("Customer"). Each of IOActive and Customer may hereinafter be referred to collectively as "the Parties," and individually as a "Party." This Agreement shall apply to all affiliates of each Party.

### 1. SERVICES

**1.1 Services.** IOActive will perform the services (the "Services") as defined in each Statement of Work ("SOW"), which will be separately executed and signed by the Parties. No SOW will be binding on either Party unless executed in writing by each Party's authorized representative. Notwithstanding the foregoing, if Customer issues a purchase order for Services under this Agreement, (a) IOActive is under no obligation to accept such purchase order, (b) such purchase order is only deemed accepted if executed or otherwise acknowledged in writing by an authorized officer of IOActive, (c) IOActive's acceptance of such purchase order is expressly limited to the terms of this Agreement, and (d) such purchase order will be governed exclusively by the terms of this Agreement and any different or additional terms in such purchase order are automatically rejected. No agreement between the Parties will exist except as hereinabove provided. To the extent applicable, Customer authorizes IOActive to access its computers and network systems solely for the purpose of performing the Services indicated in the relevant SOW. If any provision of this Agreement conflicts with a provision of any SOW, then the provision of this Agreement controls. Notwithstanding the foregoing, if the SOW expressly amends and supersedes any term of this Agreement, then such SOW shall control with respect to the term so amended or superseded.

**1.2 Delays and Cancellations.** If any delays are caused by Customer, or if Customer cancels any part of the engagement within seven (7) days of the start date, Customer shall be responsible for any and all costs incurred by IOActive in preparing for the performance of the Services, and IOActive shall be entitled to recover such additional costs from Customer, including travel related costs. The non-performance or delay by IOActive of its obligations under this Agreement shall be excused if and to the extent that such non-performance or delay results directly from the failure by Customer to perform the Customer responsibilities as set forth in an applicable SOW.

**1.3 Customer Responsibilities.** IOActive's obligation to provide Services pursuant to any given SOW is contingent on Customer's provision of the Customer Responsibilities (if any) identified in that SOW on the timetable set forth in that SOW.

### 2. PAYMENT FOR SERVICES

**2.1 Fees and Expenses.** As consideration for the Services, Customer will pay the fees set forth in each SOW ("Fees"). In addition to paying the Fees, Customer will reimburse IOActive for reasonable direct expenses IOActive incurs in delivering the Services ("Expenses") as provided in each SOW. For the avoidance of doubt, Customer is responsible for its own expenses (including third party charges) incurred in connection with this Agreement, unless IOActive and Customer separately agree otherwise in writing.

**2.2 Payment Terms.** Customer will pay Fees and Expenses within 30 days from the date of each IOActive invoice. Late payments may, at IOActive's discretion, accrue late charges at the rate of 1.5% of the outstanding balance per month or the maximum rate permitted by law, whichever is lower, from the date such payment was due until the date paid. All Fees and Expenses are payable in U.S. dollars.

**2.3 Responsibility for Taxes.** The Fees payable under this Agreement do not include applicable sales, use, gross income, occupational, or any other taxes, duties, charges or fees of any kind which may be levied in connection with the transactions contemplated by this Agreement. Except for taxes based on IOActive's net income, such amounts are Customer's responsibility, regardless of whether they appear in any given IOActive invoice.

### 3. CONFIDENTIALITY

During the term of this Agreement and for a period of five (5) years thereafter without the express written consent of the Discloser (as defined below), each of the Parties hereto shall maintain in confidence and not disclose the other Party's Confidential Information (as defined below), using the same degree of care, but no less than reasonable care, as it uses to protect its own confidential

information of like nature. The Recipient of Confidential Information (the "Recipient") may use Confidential Information solely for the purposes of fulfilling its obligations under this Agreement (the "permitted purpose"), and all Confidential Information of the Discloser of Confidential Information (the "Discloser") shall remain the sole property of the Discloser. The Recipient may disclose Confidential Information only to its affiliates and their respective employees or contractors who have a need to know such information for the permitted purpose and who are under contractual obligation to protect Confidential Information and abide by the foregoing restrictions on use. Confidential Information may not be reproduced, except as required for the permitted purpose. The Recipient agrees not to remove any proprietary rights legend from, and upon the Discloser's reasonable request shall add such legend to, materials disclosing or embodying Confidential Information. For purposes of this Agreement, "Confidential Information" means any information of a Party that is not generally available in the public domain, including without limitation, any proprietary intellectual property; provided, however, that "Confidential Information" shall not include any information that the Recipient can demonstrate: (a) was publicly known at the time of disclosure to it, or becomes publicly known through no act of the Recipient; (b) was rightfully received from a third party without a duty of confidentiality; (c) was developed by it independently; or (d) is required to be disclosed by a judicial or governmental order, in which case the Recipient shall, to the extent legally permissible, promptly notify the Discloser and take reasonable steps to assist in contesting such order or in protecting the Discloser's rights prior to disclosure. Each of IOActive and Customer acknowledge that the remedy at law for any breach or threatened breach of the provisions of this Section may be inadequate, and that the non-breaching Party, in addition to any other remedy available to it, shall be entitled to seek injunctive relief without proof of irreparable injury and without posting bond. Notwithstanding the foregoing, the obligation of the Parties as it relates to trade secrets of the other Party shall remain in effect for so long as the information qualifies as a trade secret under applicable law.

### 4. INTELLECTUAL PROPERTY

**4.1 Deliverables.** Effective upon the later of Customer's acceptance of any Deliverable (as defined in an applicable SOW) or IOActive's receipt of the final payment of Fees and Expenses for that Deliverable, IOActive hereby assigns to Customer all rights, title and interest, in and to the Deliverables (as defined in an applicable SOW), as well as all intellectual property rights (including without limitation, patent rights, copyrights, trademarks, trade secrets, moral rights, and other intellectual property or proprietary rights) embodied therein or relating thereto or arising from performance of this Agreement, provided, however, that such assignment does not include any Pre-existing IOActive Materials. IOActive reserves all rights not expressly granted to Customer in this Agreement. Except as expressly provided herein, this Agreement will not be deemed to grant Customer any right to any intellectual property of IOActive or its suppliers, including by implication, estoppel, waiver, or otherwise.

**4.2 Pre-existing IOActive Materials.** IOActive will own all works of authorship, designs, inventions, improvements, technology, developments, discoveries, curriculum, training aids, tools, software, and trade secrets conceived, made, or discovered by IOActive (a) prior to the Effective Date or (b) independent of the performance of Services under this Agreement, and any inventions, discoveries, modifications, improvements or enhancements to (a) and/or (b) above or works derivative of (a) and/or (b) made during the term of this Agreement and/or an applicable SOW and/or used by IOActive in the performance of the Services (collectively, "Pre-existing IOActive Materials"). Pre-existing IOActive Materials are and shall be and remain the sole and exclusive property of IOActive and all right, title and interest therein or related thereto, including, without limitation, all patent rights, copyrights, trademarks, trade secrets, moral rights, and other intellectual property or proprietary rights worldwide, are hereby exclusively reserved by and to IOActive.

**4.3 Responsible Disclosure.** Notwithstanding anything to the contrary in this Agreement or any applicable Statement of Work, IOActive reserves the right to report any and all security vulnerabilities discovered in third-party products





through its performance of the Services, to the applicable third-party product developer, owner and/or manufacturer, provided that: (1) the aforementioned vulnerability is first reported to Customer and approved for release, such approval not to be unreasonably withheld, delayed or conditioned; (2) no Customer Confidential Information or Customer proprietary information is disclosed to anyone outside of IOActive; and (3) Customer's identity as a client is kept anonymous at all times to any such product developer, owner and/or manufacturer.

**4.4 Non-Attribution.** Notwithstanding anything to the contrary in this Agreement or any applicable SOW, Customer agrees that without the express written consent of IOActive, Customer shall not attribute the Deliverables, whether in whole or in part, to IOActive; provided, however, Customer may disclose the Deliverables in whole and without any alterations to (a) Customer's board of directors, parent company, auditors, and attorneys who agree to be bound by confidentiality provisions at least as restrictive as those in this Agreement; and (b) regulatory agencies to which Customer may be subject, but only if required by applicable laws, rules or regulations.

**4.5 Aggregated Data.** Notwithstanding anything to the contrary in this Agreement or any applicable SOW, IOActive may compile, collect, copy, modify, publish and use data generated from or based on the Services and/or the Deliverables to create anonymized aggregated data, industry reports, and/or statistics ("Aggregated Data") for its own analytical, commercial and other business purposes, provided that Aggregated Data will not contain any information that identifies Customer and does not contain the Confidential Information or Intellectual property of Customer.

## **5. TERM AND TERMINATION**

**5.1 Term.** This Agreement becomes effective as of the Effective Date and will continue until terminated by either Party. Either Party may terminate this Agreement upon 30 days' prior written notice.

**5.2 Termination for Cause.** Either Party may suspend performance or terminate this Agreement immediately upon written notice at any time if the other Party is in material breach of any material term of this Agreement (or any SOW) and has failed to cure that breach within 30 days after written notice, or experiences any of the following events: (a) that other Party, and/or its parent company or guarantor, becomes insolvent or is unable to pay its debts as they mature, or makes an assignment for the benefit of creditors; (b) a petition under any foreign, state or United States federal bankruptcy act, receivership statute, or the like, as they now exist, or as they may be amended, is filed by that other Party; or (c) such a petition is filed by any third party with regard to that other Party, or an involuntary petition is not resolved favorably to such other Party within 90 days after the petition is filed.

**5.3 Effect of Termination; Survival.** Upon termination or expiration of this Agreement, Customer will pay all Fees and Expenses incurred before the effective termination or expiration date. Further, upon termination or expiration of this Agreement, or upon Discloser's request, the Recipient will promptly return to Discloser or destroy (and certify as to such destruction) all Confidential Information; provided, however, that Recipient may retain (a) one copy of the Confidential Information during such period that it is required by law or regulation to be retained, and (b) Confidential Information that is contained in an archived computer system or backup made by Recipient in accordance with its standard security or disaster recovery procedures, provided in each case that: (i) such retained documents will eventually be erased or destroyed in the ordinary course of records management and/or data processing procedures, and (ii) Recipient remains fully subject to the obligations of confidentiality in this Agreement until the earlier of eventual return or destruction, or the expiration of the confidentiality obligations set out in this Agreement. All pending SOWs will terminate when this Agreement terminates. Those provisions which by their nature are intended to survive termination or expiration of this Agreement shall so survive.

## **6. WARRANTY AND DISCLAIMER**

**6.1 Mutual Representations and Warranties.** Customer and IOActive each represents and warrants that: (a) this Agreement has been duly and validly executed by its respective authorized representative; (b) it has all necessary corporate power and authority to execute this Agreement and perform in accordance with this Agreement, and (c) its execution and performance of this

Agreement will not conflict with or violate any applicable law, rule or regulation to which it is subject, or any other agreement or obligation directly or indirectly applicable to that Party or binding upon its assets.

**6.2 DISCLAIMER.** EXCEPT AS STATED IN SECTION 6.1, EACH PARTY DISCLAIMS ALL WARRANTIES, EXPRESS, IMPLIED, AND STATUTORY.

## **7. LIMITATION OF LIABILITY**

EXCEPT FOR SECTION 3 (CONFIDENTIALITY), SECTION 8 (INDEMNIFICATION), GROSS NEGLIGENCE, AND WILLFUL MISCONDUCT IN NO EVENT WILL EITHER PARTY BE LIABLE TO THE OTHER PARTY OR THEIR PERSONNEL UNDER OR IN CONNECTION WITH THIS AGREEMENT FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE OR SPECIAL DAMAGES ARISING OUT OF OR RELATED TO THIS AGREEMENT, INCLUDING DAMAGES FOR LOST PROFITS, LOST BUSINESS OR OTHER INFORMATION, BUSINESS INTERRUPTION, PERSONAL INJURY, LOSS OF PRIVACY, AND THE LIKE, EVEN IF SUCH PARTY HAS BEEN ADVISED OR IS AWARE OF THE POSSIBILITY OF SUCH DAMAGES. EXCEPT FOR SECTION 3 (CONFIDENTIALITY), SECTION 8 (INDEMNIFICATION), GROSS NEGLIGENCE, AND WILLFUL MISCONDUCT, IN NO EVENT WILL EITHER PARTY'S TOTAL LIABILITY FOR ALL CLAIMS ARISING OUT OF OR RELATING TO THIS AGREEMENT EXCEED, IN THE AGGREGATE, FEES ACTUALLY PAID BY CUSTOMER TO IOACTIVE UNDER THIS AGREEMENT DURING THE TWELVE-MONTH PERIOD BEFORE THE DATE THE CAUSE OF ACTION AROSE.

## **8. INDEMNIFICATION**

**8.1 Mutual Indemnification.** Each Party will defend (or settle), indemnify and hold harmless at its expense, any action brought against the other Party (and its respective directors, officers, employees, agents, and contractors) by a third party to the extent that it is based upon or arising from (a) bodily injury, personal injury (including death) to any person, or damage to tangible property resulting from the negligent acts or willful misconduct of such other Party or its personnel hereunder, (b) a breach of Section 3 (Confidentiality), or (c) a breach of Section 6.1 (Mutual Representations and Warranties).

**8.2 IOActive Indemnification.** IOActive will defend (or settle), indemnify and hold harmless at its expense, any action brought against Customer (and its respective directors, officers, employees, agents, and contractors) by a third party to the extent that it is based upon or arising from (a) labor or employment disputes brought by IOActive's agents, consultants, or employees, or (b) infringement or misappropriation of an intellectual property right of a third party with respect to the Deliverables.

**8.3 Customer Indemnification.** The nature and purpose of the Services is to test the security of Customer's systems, and through the course of providing such Services, there is a possibility IOActive may expose a security breach ("Breach"). With this in mind, if IOActive is subject to a legal claim related to a Breach by a third party, and such claim (a) arises out of actions that are within the scope of the Agreement and applicable SOW and (b) does not arise by reason of IOActive's negligence or willful misconduct, then Customer will defend (or settle), indemnify and hold harmless at its expense, any action brought against IOActive (and its respective directors, officers, employees, agents, and contractors) by a third party to the extent that it is based upon or arising from such Breach. Notwithstanding the foregoing, IOActive agrees that it will be liable for any and all third-party claims arising from actions that are outside the scope of items (a) and (b) herein or the terms of this Agreement or the applicable SOW. IOActive additionally agrees to advise Customer of any and all breaches in a timely manner.

**8.4 Indemnification Procedure.** Any Party entitled to indemnification (the "Indemnified Party") must give the Party required to provide indemnification (the "Indemnifying Party") prompt notice of any claim subject to indemnification; provided, however, that failure to give prompt notice will not affect the Indemnifying Party's obligations except to the extent the Indemnifying Party is materially prejudiced by such failure. The Indemnifying Party will have the right, at its own expense, to assume control of the defense of such claim. The Indemnified Party will cooperate in all reasonable respects with the Indemnifying Party, subject to the Indemnifying Party's reimbursement of the Indemnified Party's reasonably incurred out-of-pocket expenses in so doing. The Indemnified Party will have the right to participate in the defense of such claim with its own counsel at its own expense. No settlement of a claim that involves





a remedy other than the payment of money by the Indemnifying Party will be entered into without the Indemnified Party's consent.

#### 9. NON-SOLICITATION.

During the provision of the Services and for a period of one year thereafter, Customer agrees not to, except with the prior written consent of IOActive, directly or indirectly solicit or hire any current employee or contractor (or former employee or contractor who was engaged by IOActive within twelve months preceding such solicitation or hire) of IOActive to become an employee or individual independent contractor of Customer, or any related entities. If Customer hires or otherwise engages an employee or contractor in violation of this Section, then Customer will pay to IOActive within 30 days of the date it is determined that Customer has breached this Section, as IOActive's sole and exclusive remedy and Customer's sole liability with respect to this Section, an amount equal to one hundred percent (100%) of the total annualized first-year compensation, including any sign-on bonuses or other bonuses or consideration to be paid such individual by Customer.

#### 10. MISCELLANEOUS

10.1 Notices. Except as otherwise provided in this Agreement, all notices under this Agreement will be given in a non-electronic signed record, sent to the addresses in the signature blocks of this Agreement with costs pre-paid, and will be effective when received by personal delivery, by next-business-day delivery service with delivery tracking, or by registered or certified U.S. mail with return receipt requested. Notices shall be addressed to "Legal Notice". Either Party may change its address by providing notice pursuant to this Section.

10.2 Independent Contractors; Assignment; Subcontractors. IOActive is an independent contractor for Customer with respect to this Agreement. Each Party agrees that no joint venture, partnership, franchise, employment or agency relationship exists between Customer and IOActive as a result of this Agreement or the performance of the Services. Neither Party may assign this Agreement or all or part of its rights or obligations under this Agreement without the other Party's prior written consent. However, IOActive may subcontract all or part of its obligation to provide Services under this Agreement to subcontractors (except for project management as specified in an applicable SOW, which will remain the responsibility of IOActive in all cases). IOActive will see that any subcontractors who perform Services under this Agreement are subject to binding obligations of this Agreement. IOActive shall be fully responsible for the acts or omissions of any subcontractors and shall maintain control over all such subcontractors.

10.3 Governing Law; Force Majeure. This Agreement will be governed by and construed in accordance with the laws of the State of Washington without regard to conflicts of laws principles. Neither Party will be responsible for delays or failures in performance resulting from acts of God, acts of civil or military

authority, fire, flood, strikes, war, epidemics, pandemics, shortage of power, telecommunications or Internet service interruptions, third party networks or other acts or causes reasonably beyond the control of that Party. A Party whose performance is affected by a force majeure event must give notice to the other Party, stating the period of time the occurrence is expected to continue and must use diligent efforts to end the failure or delay and minimize the effects of such force majeure event. If the force majeure event continues for a period of more than ten (10) business days and substantially affects the abilities of the Parties to perform the Agreement, the Party not claiming relief shall have the right to terminate the Agreement immediately upon giving written notice of such termination to the other Party.

10.4 Severability; Entire Agreement; Amendments. If a court of competent jurisdiction holds this Agreement to be illegal, invalid or unenforceable, in whole or in part, the remaining terms, covenants, and provisions will remain in full force and effect and will in no way be impaired, affected or invalidated. This Agreement is not an offer by IOActive and is not effective until signed by both Parties. This Agreement, including SOWs executed by both Parties (which are incorporated by reference), constitutes the entire agreement between the Parties with respect to the Services, the Deliverables, and its other subject matter and supersedes all prior and contemporaneous communications and proposals, whether electronic, oral or written, between the Parties with respect to such subject matter.

10.5 Waiver; Construction; Interpretation of Agreement. No waiver of any provision of this Agreement will be effective unless it is in a writing signed by the waiving Party, and no such waiver will constitute a waiver of any other provision(s) or of the same provision on another occasion. The section headings used in this Agreement are for convenience only, and the Parties do not intend that they be used in interpreting this Agreement. Any list of examples following terms such as "including" or "e.g." is illustrative and not exhaustive, unless expressly qualified by terms such as "only" or "solely." The Parties acknowledge that no provision of this Agreement will be interpreted in favor of, or against, any of the Parties hereto because any such Party or its counsel participated in the drafting thereof or because any such provision is inconsistent with any prior draft hereof or thereof. Each Party acknowledges such Party has participated in the negotiation of this Agreement and the drafting and preparation of this Agreement, and the Parties represent and warrant that they have not been coerced into entering into this Agreement, nor has any person or entity exercised any pressure or undue influence on such Party to enter into this Agreement.

10.6 Counterparts and Electronic Signatures. This Agreement may be executed by original, facsimile, or electronic signatures and in any number of counterparts, which will be considered one instrument. Counterparts, signed facsimile and electronic copies of this Agreement will legally bind the Parties to the same extent as original documents.

Accepted and agreed to by the Parties as of the Effective Date.

IOActive, Inc.

1426 Elliott Avenue West  
Seattle, WA, 98119

DocuSigned by:

Jennifer Steffens

By \_\_\_\_\_  
Name Jennifer Steffens  
Title Chief Executive Officer  
Effective Date 02 May 2022

Customer: OSID, INC.  
Address: 1919 NE BENNETT  
HILLSBORO, OR 97124  
By \_\_\_\_\_  
Name STEVE LARSON  
Title CEO  
Signature Date 4/28/2022

OS

MR

OS

IOA LCA Approved - KM

Confidential. Proprietary.

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[Page 3 of 3]



## Invoice

**Date** 7/19/2022  
**Invoice #** 7209  
**Terms** Net 30  
**Due Date** 8/18/2022  
**PO #**

IOActive, Inc.  
 1426 Elliott Ave. W  
 Seattle WA 98119  
 Tel: 206-784-4313, AR@ioactive.com  
 www.ioactive.com

### Bill To

Attn: Elena Eastwood  
 Q5ID  
 6799 NE Bennett Street  
 Hillsboro OR 97124

**Project: 7498 Q5ID - Proven Identity and Guardian Mob and Web App/Svcs Pentest**

Description	Amount
Security Consulting - Completion	100,796.00

**Total** 100,796.00  
**Amount Due** \$100,796.00

Domestic Wire or ACH Instructions:  
 Beneficiary Name: IOACTIVE, INC.  
 Account Number: 62761548163  
 ABA Number: 325070980  
 Bank Name: WASHINGTON FEDERAL  
 Bank Address: 425 Pike Street, Seattle, WA 98101

Remittance by Check Instructions:  
 IOACTIVE, INC.  
 Attention: Accounts Receivable  
 1426 Elliott Ave. W  
 Seattle, WA 98119

Foreign Wire Instructions:  
 Beneficiary Bank: Wells Fargo  
 Beneficiary Address: 420 Montgomery St, San Francisco, CA  
 SWIFT: WFBUS6S  
 Beneficiary information: Washington Federal, 425 Pike St, Seattle, WA  
 SWIFT: WAFDUS66  
 Routing: 325070980  
 Further Credit Client name: IOActive Inc.  
 Further Credit account number: 62761548163